

**Abstract of the Disclosure**

Method of manufacture of a composite wiring structure for use with at least one semiconductor device, the structure having a first conductive member upon which the semiconductor device can be mounted for electrical connection thereto. A dielectric member, made of ceramic or organo-ceramic composite material, is bonded to the first conductive member and contains embedded therein a conductive network and a thermal distribution network. A second conductive member (may be incorporated with the composite wiring structure, with a capacitor electrically connected between the conductive network and the second conductive member. Bonding between the dielectric member and the conductive members may be in the form of a direct covalent bond formed at a temperature insufficient to adversely effect the structural integrity of the conductive network and the thermal distribution network.